

WHAT IS CLAIMED:

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1. A method of customizing a web site operating on a server computer, said method comprising the following steps:

labeling content of the web site;

when at least one visitor accesses the content of a web site, registering the labeled accessed content in a personalized data file;

storing the data file for at least one visitor;

generating a set of pre-customized displays;

caching the set of pre-customized displays on the server;

when the at least one visitor accesses a web site, analyzing the data file of the visitor and associating the visitor with at least one pre-customized display;

and

displaying the pre-customized display to the visitor.

2. The method of Claim 1 wherein labeling the content of the web site comprises attaching at least one category to each web content item.

3. The method of Claim 2 wherein registering the labeled accessed content comprises accumulating the number of accesses to each category in the personalized data file.

4. The method of Claim 3 wherein analyzing the data file comprises:
prioritizing the categories in the data file; and
associating the highest weighted category with at least one pre-customized display.

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5. The method of Claim 1 wherein the pre-customized display is an insert to be placed within a web content item.

6. The method of Claim 1 wherein the pre-customized display is a web page.

7. The method of Claim 1 wherein the generating of a pre-customized display is not generated until a first visitor first requires such a display.

8. The method of Claim 7 wherein the pre-customized display is cached to display to any subsequent visitor.

9. The method of Claim 1 wherein storing the data file can be performed by multiple servers operating in parallel, without loss of information.

10. The method of Claim 1 wherein the displaying of the pre-customized display comprises inserting a plurality of pre-customized displays onto a web page accessed by the visitor.

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11. A computer readable memory that can direct a server computer to function in a specified manner, comprising:

visitor files stored in said computer memory;

pre-customized web content items stored in said computer memory; and

5 executable instructions stored in said memory, said executable instructions including:

(a) instructions to access an existing visitor file for a visitor;

(b) instructions to review data in existing visitor file to determine visitor preferences; and

10 (c) instructions, based on said visitor preferences, to provide pre-customized files to visitor.

12. The computer readable memory of Claim 11 wherein the pre-customized files are pre-customized web content items.

13. The computer readable memory of Claim 11 wherein the existing visitor
15 file contains visitor preference data.

14. The computer readable memory of Claim 13 wherein the visitor preference data contains a count of keywords.

15. The computer readable memory of Claim 14 wherein the keywords have a weighted value dependent upon the time of access of associated web content.

~~16.~~ A computer program product for operating a web site on a server computer, the computer program product comprising:

a computer usable medium having computer readable program code means embodied in said medium for searching, said computer readable program code means comprising;

means for labeling the content of a web site;

registering the labeled accessed content in a personalized data file;

means for generating a set of pre-customized displays;

means for caching the set of pre-customized displays on the server;

means for displaying the pre-customized display onto a web page accessed

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17. Computer executable software code stored on a computer readable medium, the code for personalizing a web site, the code comprising:

code for labeling the content of a web site with selected categories;

code for generating a data file for a visitor;

5 code for accumulating information regarding labeled content, to place such information in the visitor data file;

code for determining the selected category associated with the visitor's interest, wherein such determination is based on the accumulated information in the visitor data file; and

10 code for presenting cached pre-selected web content to the visitor, wherein such pre-selected web content is associated with the selected category.

18. The computer executable software code of Claim 17 further comprising code for weighting accessed information based on at least one specified variable.

19. The computer executable software code of Claim 18 wherein the at least
15 one specified variable is time of access.

Figure 1 consists of 12 histograms, labeled (a) through (l), each representing the distribution of the number of non-zero elements in the rows of the matrix A_k for $k = 0, 1, \dots, 11$. The x-axis for all histograms is the number of non-zero elements, ranging from 0 to 100. The y-axis is the frequency, ranging from 0 to 10. The distributions are generally bell-shaped and centered around 50-60 non-zero elements. The histograms show that as k increases, the distribution of non-zero elements becomes more concentrated around a central value, with some variation in the spread and peak height.

code for labeling the content of a web site with selected categories;

code for accumulating information regarding labeled content, to place such information in the visitor data file;

code for presenting cached pre-selected web content to the visitor, wherein such selected web content is associated with the selected category.